(d) the length and average width and height of the bunds on either side of the river;

(e) the place or places where the bunds end on either side of the river?

Mr. V. K. Aravindaksha Menon.—(a) All rivers have small bunds along their banks and these used to be put up by interested ryots. The Karuvannur river also had originally such bunds. While these bunds prevented ordinary floods from overtopping them, they freely allowed high floods to pass over them for a few days. Complete protection from such floods was desired by the ryots of Urakam and Government started raising the northern bund. The flood level rose consequently to the detriment of the people living on the southern side. Government then started constructing bunds on that side also.

(b) There is no information available.

(c) The virippu cultivation from Arattupuzha to Inchamudi including Urakam padam.

(d) South bund.	North bund.
Length 10,000'	Length 18,500'
Height between 10' and 5'	Height ranges between 15' and 5'
Top width between 10' and 4'	Top width ranges between 4' and 10'

(e) North bund begins from Arattupuzha and ends in Pottuchira. South bund begins from Karuvannur and ends in Karlam.

400. Mr. C. A. Ouseph.—Will the Government be pleased to state:—

(a) whether the question of lands lower down being affected by floods was considered at the time when the bunds were put up;

(b) which are the areas so affected;

(c) whether the Government have adopted any protective measures for such lower areas; if so, what?

Mr. V. K. Aravindaksha Menon.—(a) The bunds were put up long ago and there is no information forthcoming at this distance of time on the point raised.

(b) Karanchira, Karlam and the adjoining places.

(c) The Chirakkal thodu and the Pazhuvam thodu function to relieve the floods in the areas mentioned above.

401 Mr. C. A. Ouseph.—Will the Government be pleased to state:—

(a) whether Kurumbilavu and adjoining places are included in the regions that would be affected by floods in the Karuvannur river;

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(b) whether the people of Kurumbilavu and adjoining places had represented to the Government that they were being affected by the floods in the Karuvannur river and that the existence of bunds oneither side of the river was the reason for such places being affected by floods;

(c) whether the representations such as in (b) had been made even before this new canal from Muriyad lake was opened;

(d) whether the opening of the new canal has the effect of bringing to Kurumbilavu along with the river water a much larger volume of water in a specified time than was being carried by the river alone?

Mr. V. K. Aravindaksha Menon.—(a) Yes; but only the low-lying portions.

(b) Yes.

(c) Yes.

(d) The widening of the Chirakkal thodu caused a large additional draw-off from the river to deal with the extra quantity of water which would be brought down by the new Muriyad canal. The net result is that there would be no rise in the level of water in the places referred to.

Muriyad lake—water retained in during floods.

402. Mr. C. A. Ouseph.—Will the Government be pleased to state:—

(a) the volume of water held back or retained by the Muriyad lake when the Karuvannur river is in floods, say with 14' water in the river, before the new canal was opened;

(b) the average volume of water released per hour from the Muriyad lake through the new canal when the river is in floods as in (a)?

Mr. V. K. Aravindaksha Menon.—(a) The area of water spread of the Muriyad lake when the river is at 14' at the bridge gauge is about 8·5 square miles. The average depth of water in the lake will then be about 10'.

(b) About 2,000 cubic feet per second.

Bunds—Karuvannur river—effect of.

403. Mr. C. A. Ouseph.—Is the Government aware that measures taken by the Government to protect the areas in the higher regions adjoining the Karuvannur river have had the effect of ruining the areas lower down?

Mr. V. K. Aravindaksha Menon.—Government will investigate and furnish the necessary information.

The Kodankulangara canal.

404. Mr. A. Sankara Poduval.—Will the Government be pleased to state:—

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